



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Handwritten signature

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,892	07/31/2000	Louis Luneau	14792-1US-JA/AA/mb	5090
20988	7590	03/25/2004	EXAMINER	
OGILVY RENAULT 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			AHN, SAM K	
			ART UNIT	PAPER NUMBER
			2634	8

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/629,892

Applicant(s)

LUNEAU, LOUIS

Examiner

Sam K. Ahn

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment, received on 1/8/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-17 is/are rejected.
- 7) ☒ Claim(s) 1-13 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-17 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 1-13 and 19 are objected to because of the following informalities:

In claim 1, line 5, delete "at least one tunable down converter unit" and insert "at least one of tunable converter units".

In claim 1, line 8, delete "at least one tunable filter" and insert "at least one of tunable filters".

In claim 1, line 11, delete "a selected RF receiver unit" and insert "a selected one of plurality of said RF receiver units".

In claim 1, line 12, delete "unit", and insert "units".

In claim 1, lines 14-15, delete "one of a plurality of at least one tunable down converter unit" and insert "one of at least one of said tunable down converter units".

In claim 1, line 17, delete "filter" and insert "filters".

Claims 2-13 and 19 directly or indirectly depend on claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bexten (cited previously) in view of Philips et al. (Philips) .

Regarding claim 14, Bexten discloses a method for receiving a wireless communication with a device (see Fig.5) which comprises a plurality of RF receiver units (see Fig.5), at least one tunable down converter unit (520), at least one tunable filter (630 in Fig.6, and note col.7, lines 3-20), a switch (515) comprising the steps of receiving a wireless signal from an antenna (205) and outputting an IF broadband signal from the output of (505). Further, switching in order to connect one of said RF receiver units to one of said tunable down converter units (520), downconverting the IF broadband signal to provide a raw I and Q signals (see Fig.6) and filtering (in 630 in Fig.6) the raw I and Q signal to provide I and Q signals. However, Bexten does not teach receiving at least one selected channel input signal, and interpreting the signal to provide parameters for the tunable down converter unit, filter unit and the switch.

Philips teaches a programmable receiver comprising downconverting, filtering and switching (106 in Fig.3, also see 106 in Fig.4A), which are programmable. As the receiver taught by Philips comprises programmable components, it is inherent that an input signal is provided to the receive module in order to program the

components as requested, which may be at least one selected channel input signal in order to reconfigure the components to receive signals from a certain channel with a specified frequency bandwidth. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify Bexten's teaching by incorporating Philip's teaching of having a programmable receiver comprising programmable down converter unit, filter and a switch for the purpose of increasing flexibility to the system wherein the receiver would be capable of receiving signals as requested.

Regarding claim 15, Bexten in view of Philips teach all subject matter claimed, as applied to claim 14. Bexten further teaches digitizing said IF broadband signal by an ADC unit (220 in Fig.5) before switching.

Regarding claims 16 and 17, Bexten in view of Philips teach all subject matter claimed, as applied to claim 14 or 15. Bexten further teaches the step of switching said switch directed by a management unit. (Resource Manager in Fig.5, note col.6, lines 53-62)

Allowable Subject Matter

4. Claims 1-13 and 19 would be allowable if rewritten or amended to overcome the claim objection, set forth in this Office action.

Art Unit: 2634

5. The following is a statement of reasons for the indication of allowable subject matter:

Present application discloses an apparatus and method for receiving a wireless communication signal comprising plurality of receivers, down converter units, filters and a switch for connecting received signals to down converter units. It further discloses a management unit upon receiving a request for a specific frequency band, sets the parameters of the filter, down converter units and the switch. Closest prior art, Bexten, teaches in the same field of endeavor wideband digital architecture comprising all the common elements disclosed by the present application. However, Bexten nor Philips, solely or in combination, explicitly teach the management unit requesting for a specific frequency band, setting a tuning frequency of the down converter units, and setting the switch. Therefore, prior art does not teach or suggest in combination of the limitation claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

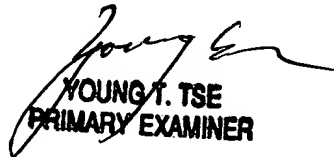
Art Unit: 2634

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn
3/16/04


YOUNG T. TSE
PRIMARY EXAMINER